



Highway Attachment 19 – Caltrans Data Request Follow-up Response

HWY18FH011

(7 pages)

CALTRANS INFORMATION REQUEST

Caltrans Information Request: NTSB Investigation (HWY18FH011) – Mountain View, CA

As of June 26, 2018, Caltrans has provided the following documentation in support of the NTSB investigation of a fatal crash which occurred on March 23, 2018 involving a Tesla Model X with collided with crash attenuator barrier on US 101 at SH 85 in Mountain View, California:

- Project plans for construction project 04-OC8904 (June 27, 2005)
- Project plans for construction project 04-438804 (December 7, 2007)
- Project plans for 85/101 interchange project 04-438804 (December 7, 2007)
- Traffic volume data for crash location (2016)
- TSAR accident data (no crash reports provided)
- IMMS work order report
- Summary of statement provide by Caltrans maintenance supervisor Ernest Ramirez (March 28, 2018)
- Survey point data and .dxf file for CHP/Caltrans scene survey

Note: The original request for data made on March 26, 2018 is enclosed as Attachment A to this follow-up request for information.

Information Still Needed in Support of the Investigation

1. Final AutoCAD diagram and highway description being prepared by Caltrans engineer assigned to CHP MAIT unit. (We are informed that MAIT will provide the report/data to NTSB directly.)
2. Copies of all traffic collision reports involving vehicles which impacted the crash attenuator barrier between January 1, 2015 to March 23, 2018. Review TSARS and SWITRs and provide copies of all related reports. Note: A review of the IMMS work history shows at minimum the following TC reports related to the following work orders are needed: (We only found two TCRs within that duration and they were attached in 9/21/18 email.)
 - IMMS Date 3-13-2015 (Work Order: 3573019): Emergency attenuator repair S/B 101 at the 85 flyover (replaced 3 side panels and bolts).
 - IMMS Date 8-18-2015 (Work Order: 3703208): Need to reset Smart Crash Cushion ASAP. Currently provided no protection. Requesting an emergency closure for the resetting of the Smart Cushions.
 - IMMS Date 1-31-2016 (Work Order: 3847208): Reset Smart Cushion Attenuator at S/B 101 and S/B 85 HOV connector
 - IMMS Date 4-14-2017 (Work Order: 4256817): Replacing totaled Smart Cushion Attenuator. Smart Cushion completely demolished in CD.

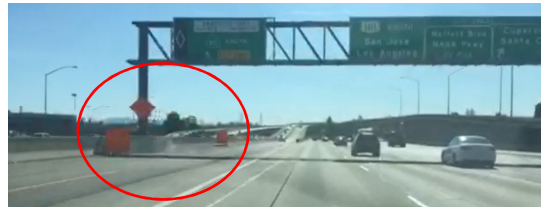
3. Detailed Timeline of Maintenance Notification and Repair of Crash Attenuator for March 12, 2018 to March 26, 2018 is still needed: ([Please see attached - Ramirez Response Data Request.pdf.](#))
 - Summary of statement by Caltrans Maintenance Supervisor Ramirez was provided. Statement had gaps in timeline and a follow-up interview may be needed. Request answers or clarification to the statement provided by Ramirez as follows:
 - Request names of the 2 Caltrans workers who first located damaged attenuator on March 20th
 - Ramirez statement said that he was notified by worker via pictures that the crash attenuator was hit and damaged beyond repair. Request the name of the worker who sent the pictures and copies of the pictures be provided to the NTSB.
 - Was a written work order developed to schedule repairs for the damaged attenuator on March 20th?
 - Was a replacement crash attenuator available in inventory on March 20th within Caltrans District 4 or at the Cupertino Maintenance facility?
 - Was a date and time set to repair the crash attenuator on March 20th and is their documentation of the schedule for repairs?
 - Ramirez was notified of crash on March 23rd by Carlos Uribe. Was there a discussion on March 23rd about when crash attenuator would be replaced? Why wasn't it replaced on March 23rd?
 - Ramirez statement says: "On March 26th I obtained a new SMART crash cushion to replace the same one damaged out at the gore point with an emergency closure and were done by 1530." - This statement implies that there was not a SMART crash cushion in inventory for the time between March 20th to March 26th. Is this true?
 - Ramirez said he was never notified about the March 12th crash and there was not a BAIRs log entry. Please confirm there was no BAIRs log or any other documentation that the CHP notified Caltrans of the March 12th crash.
4. Please provide location where the damaged crash attenuator is being held by Caltrans. ([6010 Monterey Rd, San Jose, CA](#))
5. Who is the Caltrans District 4 Safety Devices Coordinator? Since every repair of crash attenuator (safety device) must be approved and a checklist approved by the safety devices coordinator, request any records maintained regarding historical repairs made to crash attenuator at accident location. ([The interim D4 Traffic Safety Devices Coordinator is Saif Mamoon. When damaged crash attenuators are repaired and replaced in kind, Maintenance do not contact the Safety Devices Coordinator. The checklist is approved by the Maintenance Supervisor. Only when they need a recommendation for a different kind,](#)

then they seek the Coordinator's recommendation.)

6. Request copy of Caltrans Maintenance Manual Volume 2 section related to required repair/replace timeline for crash attenuator barrier. ([Mtce Manual-I M3 & Mtce Manual-II M-Family attached.](#))
7. Caltrans issued a Memo to all Maintenance Districts on July 31, 2015 regarding the maintenance of safety devices (see attached). Is this memo still valid and considered current guidance? ([Yes.](#))
8. Caltrans memo states that every maintenance region is required to have a minimum of two of every type of end treatment and crash cushion installed within boundaries. Did Caltrans District 4 have 2 SMART crash cushions in inventory on March 12th when initial crash occurred? ([Please see attached - Ramirez Response Data Request.pdf.](#))
9. Caltrans memo states that the local maintenance crew or district must respond immediately to all accident or vehicle collisions that involve a safety device. How does Caltrans District 4 ensure this occurs? ([Please see attached - Ramirez Response Data Request.pdf.](#))
10. Caltrans memo states that CHP, local LE, or local emergency response agency MUST notify Caltrans of any accident involving a guardrail or crash cushion, no matter how trivial the damage appears to be. Do the local agencies in Caltrans District 4 know this is a requirement? How is this communicated? Is there a memorandum of understanding of this requirement? ([Please see attached - Ramirez Response Data Request.pdf.](#))
11. Caltrans memo states that the repair or replacement of a damaged attenuator is a Priority Code – 1W – “within one week.” Is this still the required timeline for replacement? ([Yes.](#))
12. A review of the IMMS Work Order report had entries spread sporadically throughout the 375-page document indicating Activity Code D20020 – Supervisor Area Inspection. The comments read: “The Supervisor or a specifically designated member of the crew should travel over all highways in their assigned areas of responsibility, including ramps and collector systems, at least once a week to observe overall conditions and detect deficiencies. Known or potential problem areas may require more frequent inspections.” Question: How does Caltrans ensure supervisors complete the required weekly inspections and how is it documented? The IMMS work order report appears to show that the weekly inspections are only occurring occasionally. ([Please see attached - Ramirez Response Data Request.pdf.](#))
13. Please provide the date that the gore point area at US 101 southbound at State Highway 85 was painted? Also, request the approximate date of the next scheduled pavement striping project? ([May 2018. One pavement Capital Preventive Maintenance \(CAPM\)](#))

project is planned to program in the 2022 SHOPP with the estimate construction in 2024/2045.)

14. In a review of crash scene photos, there were 3 construction related signs located in the immediate location of the crash scene. One sign said "HOV Lane Closed" for a project completed in 2017. Were these signs just an oversight and not removed at the end of the prior project? (Please see attached - Ramirez Response Data Request.pdf.)



ATTACHMENT A: INITIAL INFORMATION REQUEST

Caltrans Information Request: NTSB Investigation (HWY18FH011) – Mountain View, CA

List provided to Caltrans Engineers on March 26th (MAIT) and on April 18th (A. Maung)

Information requested: **Items in red are complete**, more information is needed for items highlighted in yellow.

1. Highway plans for accident location (i.e. recent survey data / maintenance plans) **(As-Built plans provided on May 11th)**.
2. Project plans for any major maintenance of construction projects completed in area during past 5 years **(Project plans provided on May 11th)**
3. Copy of survey data (raw data / .dxf file) and drawing file (.dwg file) for CHP/Caltrans survey of accident scene completed on Sunday, April 8, 2018 **(Still awaiting .dwg scene diagram and roadway description from MAIT)**
4. Traffic Metrics (AADT) for 101 S/B at SH 85 **(Traffic metric data provided on May 11th)**
5. Caltrans traffic loop data for sensors immediately north of accident location (3-23-18 from 9:20 a.m. to 9:40 a.m. **(Still Awaiting Data)**)
6. Crash history at location (minimum past 3 years) – copies of TC reports where crash attenuator was hit. **(Awaiting copies of TC reports for a minimum of 3 years leading to crash)**
7. IMMS Work Orders for crash location (attached is information received from Caltrans District 4 during a prior NTSB investigation. Would like to obtain a full IMMS list to included data from January 1, 2015 to March 26, 2018). **(IMMS data provided on May 11th)**
8. All documents relate to most recent IMMS work order issued following March 12, 2018, impact with attenuator:
 - **NTSB requires detailed timeline of maintenance notification and repair of crash attenuator at accident site from when it was damaged in a crash on March 12, 2018 until time of repair on Monday, March 26, 2018. (More detailed timeline is needed)**
 - **Preliminary discussions with Caltrans indicate that no notification was ever made by the CHP following the crash on March 12, 2018 – Please confirm this is correct. (Confirm that CHP notification to Caltrans was never made)**
 - **Preliminary discussions with Caltrans indicate that the first time agency became aware of damaged attenuator was during highway drive-through and maintenance person noticing it. Please confirm name of Caltrans person who noticed damaged attenuator and actions taken from that point on. (Need to confirm names of Caltrans personnel involved)**
9. Confirm crash attenuator was a SCI SmartCushion TL-3 SCI100GM Impact Attenuator **(Complete)**
10. All documents regarding SMART Cushion repair and maintenance procedures. **(Complete)**
11. Current location where damaged crash attenuator is being held. **(Confirm location where damaged crash attenuator is being held).**

12. Future projects (including striping) planned at accident location. (Please provide scheduled dates for future striping project)